Amendments to the Specification:

Please amend the paragraph bridging pages 2 to 7 of the instant specification as follows:

Prior arts to the present invention are cited in the following.

1) Amagai M, Hashimoto T, Shimizu N, and Nishikawa T: "Absorption of pathogenic autoantibodies by the extracellular domain of pemphigus vulgarisantigen (Dsg3) produced by baculovirus." *J Clin Invest* ~~J Clin Invest~~ 94:59-67, 1994.

2) Amagai M, Klaus-Kovtun V, and Stanley JR: "Autoantibodies against a novel epithelial cadherin in pemphigus vulgaris, a disease of cell adhesion." *Cell* [[Cell]] 67:869-877, 1991.

3) Amagai M, Koch PJ, Nishikawa T, and Stanley JR: "Pemphigus vulgaris antigen (Desmoglein 3) is localized in the lower epidermis, the site of blister formation in patients." *J Invest Dermatol* ~~J Invest Dermatol~~ 106:351-355, 1996.

4) Amagai M, Tsunoda K, Suzuki H, Nishifuji K, Koyasu S, and Nishikawa T ~~NishikawaT~~: "Use of autoantigen-knockout mice in developing an active autoimmune disease model for pemphigus." *J Clin Invest* ~~J Clin Invest~~ 105:625-631, 2000.

5) Chen M, O'Toole EA, Muellenhoff M, Medina E, Kasahara N, and Woodley DT ~~WoodleyDT~~: "Development and characterization of a recombinant truncated type Vlll collagen "minigene". Implication for gene therapy of dystrophic epidermolysis bullosa." *J Biol Chem* ~~J Biol Chem~~ 275:24429-24435, 2000.

6) Choate KA, Medalie DA, Morgan JR, and Khavari PA: "Corrective gene transfer in the human skin disorder lammelar ichthyosis." *Nat Med* ~~Nat Med~~ 2:1263-1267, 1996.

7) Christensen R, Jensen UB, and Jensen TG: "Cutaneous gene therapy-an update." *Histochem Cell Biol* ~~Histochem Cell Biol~~ 115:73-82, 2001.

8) Dai Y, Schwarz EM, Gu D, Zhang W-W, Sarvetnick N, and Verma IM: Cellular and humoral immune responses to adenoviral vectors containing factor lX gene: "Tolerization of factor lX and vector antigens allows for long-term expression." *Proc Natl Acad Sci* ~~Proc Natl Acad Sci~~ 92:1401-1405, 1995.

9) Datta SK, and Kalled SL: "CD40-CD40 ligand interaction in autoimmunedisease." *Arthritis Rheum* ~~Arthritis Rheum~~ 40:1735-1745, 1997.

10) Dellambra E, Vailly J, Pellegrini G, Bondanza S, Golisano O, Macchia C, Zambruno G, Meneguzzi G, and De Luca M: "Corrective transduction ofhuman epidermal stem cells in laminin-5-dependent junctional epidermolysis bullosa." *Hum Gene Ther* ~~Hum Gene Ther~~ 9:1359-1370, 1998.

11) Freiberg RA, Choate KA, Deng H, Alperin ES, Shapiro LJ, and Khavari PA: "A model of corrective gene transfer in X-linked ichthyosis." *Hum Mol Genet* ~~Hum Mol Genet~~ 6:927-933, 1997.

12) Greenhalgh DA, Rothnagel JA, and Roop DR: "Epidermis: An attractivetarget tissue for gene therapy." *J Invest Dermatol* ~~J Invest Dermatol~~ 103:63S-69S, 1994.

13) Hengge U, Chan EF, Foster RA, Walker PS, and Vogel JC: "Cytokine gene expression in epidermis with biological effects following injection of naked DNA." *Nat Genet* ~~Nat Genet~~ 10:161-166, 1995.

14) Hengge UR, Walker PS, and Vogel JC: "Expression of naked DNA in human, pig, and mouse skin." *J Clin Invest* 97(12):2911-6~~J Clin Invest in press~~, 1996.

15) Ilan Y, Prakash R, Davidson A, Jona V, Droguette G, Horwitz MS, Chowdhury NR, and Chowdhury JR: "Oral tolerizationto adenoviral antigens permits long-term gene expression using recombinant adenoviral vectors." *J Clin Invest* ~~JClin Invest~~ 99:1098-1106, 1997.

16) Jensen TG, Jensen UB, Jensen PK, Ibsen HH, Brandrup F, Ballabio A,and Bolund L: "Correction of steroid sulphatese deficiency by gene transfer into basal cells of tissue-cultured epidermis from patients with recessive X-linked ichthyosis." *Exp Cell Res* ~~Exp Cell Res~~ 209:392-397, 1993.

17) Katsumi A, Emi N, Abe A, Hasegawa Y, Ito M, and Saito H: "Humonal and cellular immunity to an encoded protein induced by direct DNA injection." *Hum Gene Ther* ~~Hum Gene Ther~~ 5 (11):1335-9, 1994.

18) Kay MA, Holterman~~Hotlterman~~ AX, Meuse L, ~~Allen~~ Gown A, Ochs HD, Linsley PS, ~~andWilson~~ and Wilson CB: "Long-term hepatic adenovirus-mediated gene expression in ~~micefollowing~~ mice following CTLA4Ig administration." *Nat Genet* ~~Nat Genet~~ 11:191-197, 1995.

19)Khavari PA: "Gene therapy for genetic skin disease." *J Invest Dermatol* ~~J Invest Dermatol~~ 110:462-467, 1998.

20) Khavari PA: "Genetic correction of inherited epidermal disorders." *Hum Gene Ther* ~~Hum Gene Ther~~ 11:2277-2282, 2000.

21) Koch PJ, Mahoney MG, Ishikawa H, Pulkkinen L, Uitto J, Shultz L, Murphy GF, Whitaker-Menezes D, and Stanley JR: "Targeted disruption of the pemphigus ~~thepemphigus~~ vulgaris antigen (desmoglein 3) gene in mice causes loss of keratinocyte cell adhesion with a phenotype similar to pemphigus vulgaris." *J Cell Biol* ~~J Cell Biol~~ 137:1091-1102, 1997.

22) Larregina AT, and Falo LD: "Generating and regulating immune responses through cutaneous gene delivery." *Hum Gene Ther* ~~Hum Gene Ther~~ 11:2301-2305, 2000.

23) Morral N, O'Neal ~~O'neal~~ W, Zhou H, Langston C, and Beaudet A: "Immune response to reporter proteins and high viral dose limit duration of expression with adenoviral vectors: comparison of E2a wild type and E2a ~~deletedvectors~~deleted vectors." *Hum Gene Ther* ~~Hum Gene Ther~~ 8:1275-1286, 1997.

24) Ohyama M, Amagai M, Tsunoda K, Ota T, Koyasu S, Hata J, Umezawa A,and Nishikawa T: "Immunologic and histopathologic characterization of active disease mouse model for pemphigus vulgaris." *J Invest Dermatol* ~~J Invest Dermatol~~ 118:199-204, 2002.

25) Seitz CS, Giudice GI, Balding SD, Marinkovich MP, and Khavari PA: "BP180 gene delivery in junctional epidermolysis bullosa." *Gene Ther* ~~Gene Ther~~ 6:42-47, 1999~~Spirito F, Meneguzzi G, Danos O, and Mezzina M: Cutaneous gene transferand therapy; the present and the future. J Gene Med 3:21-31, 2001~~

26) Stein CS, Martins I, and Davidson BL: "Long-term reversal of hypercholesterolemia in low density lipoprotein receptor (LDLR)-deficient mice by ~~miceby~~ adenovirus-mediated LDLR gene transfer combined with CD154 blockade~~blokade~~." *J Gene Med* ~~J Gene Med~~ 2:41-51, 2000.

27) Tripathy SK, Black HB, Goldwasser E, and Leiden JM: "Immune responses to transgene-encoded proteins limit the stability of gene expression~~expresson~~ after injection of replication-defective adenovirus vectors." *Nat Med* ~~Nat Med~~ 2:54 5-550, 1996.

28) Uitto J, and Pulkkinen L: "The genodermatoses: candidate disease for gene therapy." *Hum Gene Ther* ~~Hum Gene Ther~~ 11:2267-2275, 2000.

29) Vailly~~Vaily~~ J, Gagnoux-Palacios L, Dell'Ambra ~~Del'Ambra~~ E, Romero C, Pinola M, Zambruno G, De Luca M, Ortonne J-P, and Meneguzzi G: "Corrective gene transfer of keratinocytes from patients with junctional epidermolysis bullosa restores assembly of hemidesmosomes in reconstructed epithelia." Gene Ther 5(10): ~~Gene Ther~~1322-1332~~1322~~, 1998.

30) Vogel JC: "Keratinocyte gene therapy." *Arch Dermatol* ~~Arch Dermatol~~ 129:1478-1483,1993.

31) Vogel JC: "Nonviral skin gene therapy." *Hum Gene Ther* ~~Hum Gene Ther~~ 11:2253-2259,2000.

32) Yamada A, and Sayegh MH: "The CD154-CD40 costimulatory pathway in transplantation." *Transplantation* ~~Transplantation~~ 73:S36-S39, 2002.

33) Yang Y, Su Q, Grewal IS, Schilz R, Flavell RA, and Wilson JM: "Transient subversion of CD40 ligand function diminishes immune response to adenovirus vectors in mouse liver and lung tissues." *J Virol* ~~1996~~ 70:6370-6377, 1996.

34) Yao SN, Farjo A, Roessler BJ, Davidson BL, and Kurachi K: "Adenovirus-mediated transfer of human factor [[1X]]IX gene in iummunodeficient and normal mice." *Viral Immunol* ~~Viral Immunol~~ 9:141-153, 1996.

35) Zeng L, Sarasin A, and Mezzina M: "Retrovirus-mediated DNA repair gene transfer into xeroderma pigmentosum cells." *Cell Biol Toxicol* ~~Cell Biol Toxicol~~ 14:105-110, 1998.

36) Spirito F, Meneguzzi G, Danos O, and Mezzina M: "Cutaneous gene transfer and ~~transferand~~ therapy; the present and the future." *J Gene Med* 3:21-31, 2001.

Please amend the paragraph at page 11 of the instant specification regarding Figure 2 as follows:

Fig. 2 is a graph showing the result of ELISA method showing the production of IgG antibody against the transgene product Dsg3(vertical [[axe]]axis: OD level of ELISA method; horizontal [[axe]]axis: number of days from the initiation of the treatment).

Please amend the paragraph at page 11 of the instant specification regarding Figure 5 as follows:

Fig. 5 is a graph showing the results of ELISA method, showing the anti-Dsg3 IgG antibody production in $Dsg3^{+/+}$ graft strain. For the hamster-IgG administered group as a control, anti-Dsg3 IgG antibody production was observed in approximately 2 weeks (full line), while the IgG production was significantly suppressed for the MR1-administered group(dotted line). (vertical [[axe]]axis: OD level of mouse Dsg3 IgG ELISA; horizontal [[axe]]axis: number of days after skin graft).

Please amend the paragraph bridging pages 13 and 14 of the instant invention as follows:

For example, as for the adenoviral vector, it is preferable that ITR (inverted terminal repeat) and envelope repeat are included, and a whole of or a part of E1 adenovirus region is deficient. Moreover, a whole of or a part of E3 adenovirus region can be deficient, however it is preferable that a part of E3 region that encodes ~~glicoprotein~~ glycoprotein gp19k is maintained. Furthermore, as HIV viral vector incorporates the introduced nucleic acid into the chromosome, it can express continuously a drug-gene which is the nucleic acid. Moreover, as

HIV vector is able to transfer genes selectively to CD4-positive T cells, which are molecules on the surface of cells, and also to integrate to chromosomes even during resting stage when cells are not dividing. Thus, for example, by using peusdotype HIV viral vector wherein Env protein being a HIV coat protein was substituted for VSV-G protein, which is a coat protein of Vesicular stomatitis virus, it would be possible to introduce drug-genes effectively to any type of cells in resting stage, such as bone marrow stem cells, hematopoietic stem cells, neuron and muscle cells.